

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) An image processing apparatus having an optical area in which a plurality of elements are disposed in a matrix having rows and columns, comprising:

light reception means for receiving light introduced into said elements of said optical area and photoelectrically converting the light;

a plurality of operating units, each of which operates a signal obtained for a corresponding one of said elements by the photoelectric conversion by said light reception means in accordance with a predetermined rule, the operation of said operating units being based on at least one of a clear signal and a transfer signal;

a plurality of outputting units, each for receiving a result of the operation of a corresponding one of said operating units and outputting the result of the operation for each of said corresponding one of said elements; and

timing adjustment means for adjusting a timing at which the result of the operation is output for each of said plurality of elements from said outputting units, said timing adjustment means using a control signal other than the clear signal or the transfer signal in the timing adjustment.

2. (previously presented) An image processing apparatus according to claim 1, wherein said operating units include storage means for successively storing a plurality of signals at different timings obtained by the photoelectric conversion.

3. (previously presented) An image processing apparatus according to claim 2, wherein said operating units execute a comparison operation for a combination of a plurality of ones of the signals stored in said storage means.

4. (previously presented) An image processing apparatus according to claim 3, wherein the comparison operation includes an arithmetic operation for determining a maximum value or a minimum value of the signal.

5. (previously presented) An image processing apparatus according to claim 1, wherein said outputting units output results of an arithmetic operation for each of the rows or the columns of said corresponding elements at a timing adjusted by said timing adjustment means.

6. (previously presented) An image processing method for an image processing apparatus which has an optical area in which a plurality of elements are disposed in rows and columns, forming a matrix, comprising:

a light reception step of receiving light introduced into said elements of said optical area and photoelectrically converting the light;

an operation step of operating a plurality of signals obtained for each of said elements by the photoelectric conversion in the light reception step in accordance with a predetermined rule, the operation being based on at least one of clear signal and transfer signal;

an outputting step of receiving a result of the operation from the operation step and outputting the result of the operation step for each of said elements by a corresponding outputting unit of a plurality of outputting units provided for each of said elements; and

a timing adjustment step of adjusting a timing at which the result of the operation is output for each of said plurality of elements by processing in the outputting step, said timing adjustment step using a control signal other than the clear signal or the transfer signal in the timing adjustment.

7. (previously presented) An image processing method according to claim 6, wherein the operation step includes a storage step of successively storing a plurality of signals at different timings obtained by the photoelectric conversion.

8. (previously presented) An image processing method according to claim 7, wherein the operation step executes comparison operation for a combination of a plurality of ones of the signals stored by the storage step.

9. (previously presented) An image processing method according to claim 8, wherein the comparison operation includes an arithmetic operation for determining a maximum value or a minimum value of the signal.

10. (previously presented) An image processing method according to claim 6, wherein the outputting units output results of an arithmetic operation for each of the rows or the columns of said elements at a timing adjusted by the timing adjustment step.

11. (previously presented) An image processing apparatus having an optical area in which a plurality of elements are disposed in a matrix, comprising:

light reception means for receiving light introduced into said elements of said optical area and photoelectrically converting the light; and

operation means including a plurality of operating units, each of which operates a signal obtained for one of said elements by the photoelectric conversion by said light reception means in accordance with a predetermined rule, the operation being based on at least one of a clear signal or a transfer signal;

wherein the operation of said operation means includes a plurality of modes that are selected based on a control signal other than the clear signal and the transfer signal,

wherein said plurality of modes are represented by different expressions from each other.

12. (previously presented) A method for processing images in an apparatus having an optical area in which a plurality of elements are disposed in a matrix, said method comprising the steps of:

receiving light introduced into the elements of the optical area and photoelectrically converting the light;

performing operation on a signal resulting from said photoelectric conversion and received by each of the elements, through a plurality of operating units in the element receiving the signal in accordance with a predetermined rule based on at least one of a clear signal or a transfer signal; and

outputting said operated signal in accordance with a plurality of modes that are selected based on a control signal other than the clear signal and the transfer signal,

wherein said plurality of modes are represented by different expressions from each other.

13. (previously presented) An image processing apparatus according to claim 1, wherein said operating units perform an arithmetic operation.

14. (previously presented) An image processing apparatus according to claim 1, wherein the operating units store and operate a plurality of photoelectrically converted signals received by one of said elements at predetermined timing intervals.

15. (previously presented) An image processing apparatus according to claim 14, wherein the operating units store and operate the photoelectrically converted signals in the order in which the signals are received.